

# Mental health pharmacists as interim prescribers

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## Abstract

**Introduction:** Turnover leading to fluctuations in prescriber availability presents many challenges, most notably in access to and continuity of care. In 2015, the Veterans Affairs Eastern Colorado Healthcare System (VA ECHCS) experienced a period of significant mental health prescriber turnover leading to patient utilization of psychiatric emergency services (PES) for nonemergent medication management. The resulting increase in volume placed excessive stress on PES prescribers. Mental health pharmacists have opportunities to provide interim medication management while patients are between prescribers.

**Methods:** This study was a retrospective, cohort study of patients unassigned to an outpatient mental health prescriber due to prescriber turnover, receiving care at VA ECHCS between October 1, 2015, and February 28, 2016. The primary outcome was the number of pharmacist interventions performed. Secondary outcomes characterize the interventions performed and describe the change in the mean monthly volume of patients presenting to PES.

**Results:** In this veteran population, 152 interventions were performed in 81 unique patients. The most common intervention was prescription renewals (80%). Interventions most commonly involved antidepressants (28%), antipsychotics (10%), and mood stabilizers (10%). Before initiation of the clinic, Denver VA PES experienced a mean of 300 monthly visits. After clinic implementation, PES visits decreased significantly to a mean of 237 visits per month ( $P=.041$ ).

**Discussion:** The pharmacist interim prescriber clinic was associated with a significant decrease in mean number of patients seen per month in PES. The success of the clinic also contributed to interest by the mental health service to expand clinical pharmacy services.

**Keywords:** interim, psychotropic medications, psychiatric emergency service, PES, prescriber, intervention, turnover, mental health, pharmacist, pharmacy

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## Background

In 2011, an estimated 11.5% of the US adult population utilized a prescription medication for mental illness.<sup>1</sup> And yet, despite psychiatry's current status as the sixth largest medical specialty, the supply of available clinicians has not kept up with demand.<sup>2</sup> This has resulted in a shortage of mental health prescribers, leading to patients with unmet mental health needs. Additionally, health care systems must also adapt to transient fluctuations in prescriber availability, such as prescriber turnover due to retirement, changes in location, and discordance between expectations and organization culture/rules/norms.<sup>3,4</sup>

A potential solution to prescriber turnover in mental health is the utilization of clinical pharmacists. Mental health pharmacists have been promoted as being uniquely qualified to meet the needs of patients in light of shortage of providers. These pharmacists have clinical experience in mental health equivalent to or exceeding 2 years of residency, and many hold specialized credentials such as “B,” indicating board certification. Public health surveillance estimated that from 2009 through 2011, there was an estimated 89 000 visits annually to emergency departments related to adverse drug events involving psychiatric medications. As experts in psychiatric pharmacotherapy, mental health pharmacists can help extend physician capacity and improve medication-related outcomes as well as access to care.<sup>1,5,6</sup>

Transitions in care have the potential to be destabilizing periods for many patients and is an area where pharmacist-performed medication therapy management (MTM) has been found to be beneficial.<sup>7</sup> While existing literature tends to focus on transitions between care settings, there is a paucity of data addressing transitions of care between prescribers. This study seeks not to characterize these transitions but to explore the inclusion of mental health pharmacists as prescribers and describe their impact on the health care system. The objectives of this study were (1) to quantify and characterize the interventions performed by mental health pharmacists and (2) to describe pharmacist’s impact on the monthly volume of patients seen at the Denver VA Medical Center’s psychiatric emergency services (PES).

## Methods

This study was a retrospective, cohort study of patients receiving mental health care at the Veterans Affairs Eastern Colorado Healthcare System (VA ECHCS) who lost their outpatient mental health prescriber due to turnover and were in need of MTM between October 1, 2015, and February 28, 2016. This study was approved by the University of Colorado Institutional Review Board and the VA ECHCS research committee.

The VA ECHCS mental health pharmacists maintain a spreadsheet of patients identified as unassigned to medication management due to but not limited to prescriber turnover, who were then assigned to telephone or face-to-face follow-up by a mental health pharmacist. This spreadsheet was not compiled for the purpose of this study but was used to identify patients with the characteristics necessary for inclusion. All data were collected using either this database or the Computerized Patient Record System, the VA’s electronic medical record.

Patients were included if they were aged 18 years or older, had lost their previous mental health prescriber due to turnover, and received mental health MTM at the VA ECHCS. Patients were excluded if they had already been reassigned to a mental health prescriber and seen prior to mental health

pharmacist follow-up or if they were already reassigned and had not yet been seen but were identified as having sufficient medication until their appointment.

The study coordinator reviewed all pertinent medical records to determine study eligibility. Once eligibility was established, a more extensive chart review was performed. The following data were collected: age, gender, psychiatric diagnoses, psychiatric medications, reason for prescriber turnover, and type(s) of intervention performed. Data pertaining to the volume of monthly PES patient encounters from July 2015 through the end of the study were also collected. Data prior to July 2015 were not available.

The primary outcome was the total number of mental health pharmacist interventions through the duration of the study. Secondary outcomes included descriptions of the interventions performed and the change in monthly PES volume, before and after clinic implementation.

Descriptive statistics, including percentages and means, were performed. Baseline characteristics were reported as raw numbers, with the exception of age, which was reported as a mean. For the secondary endpoint pertaining to the PES data, it was defined as the difference between the mean monthly patient volume for 3 months prior to the study and the 5 months of the study. A 2-sided unpaired *t* test was used to test statistical significance in the PES data. A *P* < .05 was considered statistically significant.

## Results

### Patient Characteristics

A query of the VA ECHCS database identified 87 patients who received care as a result of the interim prescriber clinic; of those, 81 patients were identified as appropriate for the study. At baseline, patients were a mean of 46.2 years old and predominantly male (80%). A majority of patients presented with multiple comorbid psychiatric diagnoses (70%) while the most common diagnoses were posttraumatic stress disorder (53%) and depression (53%). A full description of the baseline characteristics can be found in the Table.

### Primary Outcome

Mental health pharmacists performed 152 interventions in 81 unique patients.

### Secondary Outcomes

Medication renewals accounted for 80% of all interventions. The remaining 20% included medication initiation/discontinuation, cross-titration to another agent, and dose adjustments based on the clinical judgment of the mental health

**TABLE:** Baseline characteristics and types of interventions performed

Characteristic	No. (%)
Age, y	46.2
Gender, male/female	65/16
Charted psychiatric diagnoses, No.	
Attention deficit hyperactivity disorder	11 (14)
Anxiety disorder	20 (25)
Bipolar disorder	15 (19)
Depressive disorder	43 (53)
Eating disorder	2 (2)
Personality disorder	1 (1)
Psychotic disorder	10 (12)
Posttraumatic stress disorder	45 (56)
Sleep disorder	6 (7)
Substance use disorder	15 (19)
Co-occurring psychiatric diagnoses, No.	
≤1	25 (31)
2	26 (32)
≥3	30 (37)
Reason for nonassignment, No.	
New position in system	7 (9)
Not established	4 (5)
Provider left veteran affairs hospital (quit)	14 (17)
Provider retired	21 (26)
Provider transferred to other facility	35 (43)
Type of intervention	
Decrease	2 (1)
Discontinue	2 (1)
Increase	9 (6)
Initiation	7 (5)
Refill	8 (5)
Renew	121 (80)
Re-titration	3 (2)

pharmacist. A full description of the interventions that were performed can be found in the Table. Figure 1 separates the total number of interventions by medication class.

In the 3 months prior to initiation of the clinic, there was an average of 300 monthly patient encounters in PES. In the 5-month period during which the clinic was active, the average clinic encounters decreased to 237 per month ( $P=.041$ ). The highest number of patient encounters in any given month was 323 in September 2015, which was 1 month prior to initiation of the clinic. The low was 194 seen in February 2016, the last month the clinic was actively followed for the purpose of this study. A full description of monthly PES numbers is located in Figure 2.

## Discussion

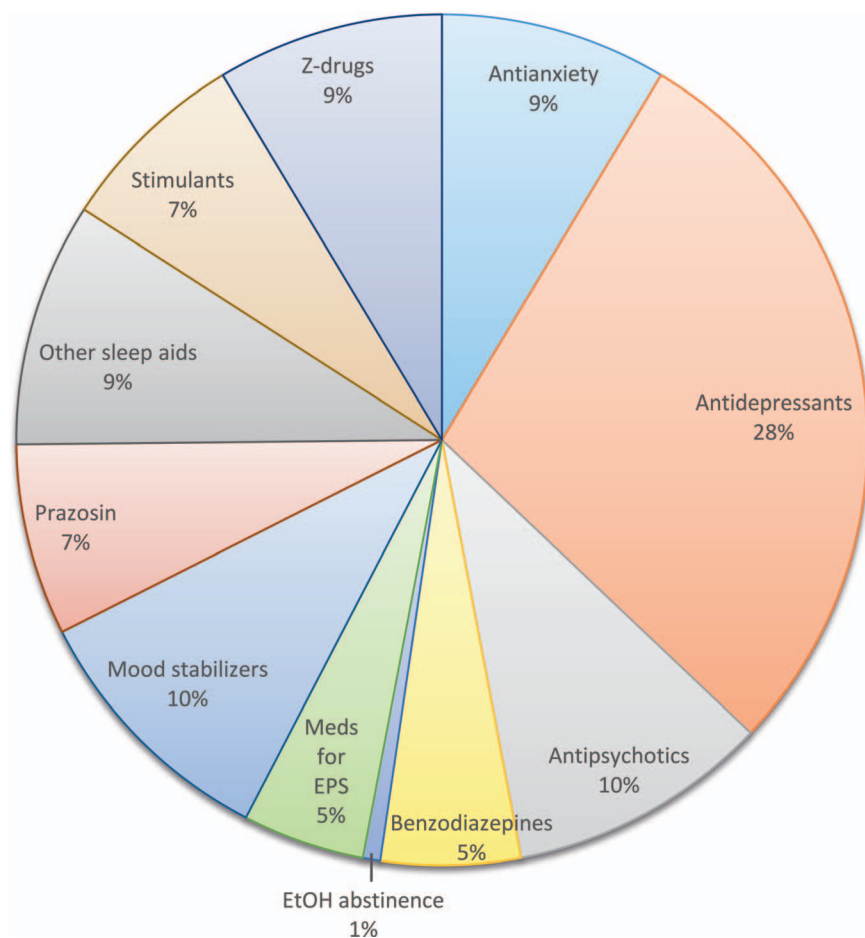
To our knowledge, this is the first study of its kind to explore the impact of mental health pharmacists as interim prescribers for patients with mental health disorders undergoing a transition between prescribers. This topic is particularly notable when considered in the context of access to care and the challenges prescriber turnover can create and/or exacerbate.

Reassignment of patients was made more challenging by a shortage in auxiliary staff, such as schedulers. While many departing prescribers attempted to facilitate reassignment at a patient's final appointment, this process was frequently unable to capture the entirety of a prescriber's patient panel. As a result, a list of a departing prescriber's patients was given to the schedulers for reassignment. However, owing to a shortage in schedulers and the inability to contact some patients for rescheduling, many were not properly reassigned.

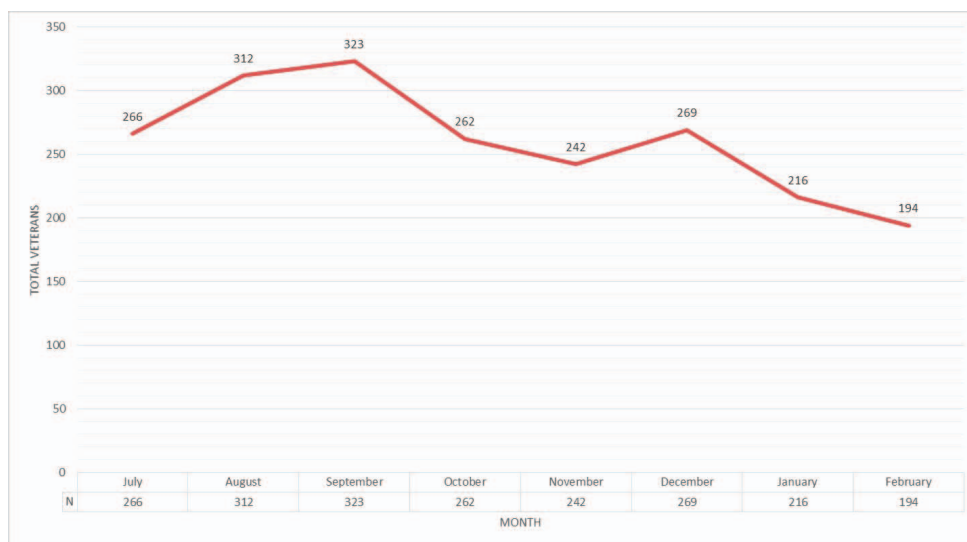
The interim prescriber clinic was born when the facility's outpatient mental health pharmacist identified that numerous patients who had lost their prescriber were presenting to the pharmacy and PES requesting medication renewals. This prompted that mental health pharmacist to bring the issue to the attention of the outpatient mental health medical director. The mental health pharmacist proposed the concept of mental health pharmacists functioning as interim prescribers, which was enthusiastically accepted by the medical director. Lists of prescriptions, written by prescribers who had departed, that would expire within a certain time period were periodically compiled by mental health pharmacists. This list was then used to identify patients appropriate for interim MTM conducted by the pharmacist.

The mental health pharmacists involved in this study function under a scope of practice providing a limited prescriptive authority. This scope allows for the ordering of relevant labs and the prescription of noncontrolled medications used to treat or manage psychiatric disorders, including those drugs used to mitigate treatment-related side effects. For patients in need of controlled substances, each case was discussed with the medical director of the outpatient mental health clinic, who entered the order if appropriate. Patient assessment was subjective and conducted by way of an interview involving questions about relevant mental disorders, medication dosing, adherence, efficacy, and side effects. This assessment occurred in all patients for all relevant mental health medications regardless of whether a renewal or a change in therapy was determined to be appropriate.

In this study, about 80% of all interventions involved medication renewals. One explanation for the predominance of this result may be that a majority of patients were in a stabilized, maintenance phase of treatment requiring very little to no adjustment. This would have meant that the



**FIGURE 1:** Percentage of interventions; note groups are listed by medication class and specification of a pharmacological class or individual drug was based on perceived importance of the distinction (antianxiety = non-benzodiazepine and non-antidepressants such as buspirone, gabapentin, and hydroxyzine; EPS = extrapyramidal symptoms; EtOH = ethanol; other sleep aids = amitriptyline, ramelteon, and trazodone)



**FIGURE 2:** Total number of patients encountered by psychiatric emergency services

most appropriate and commonly agreed upon course of action was continuation of care. Additionally, whether the intervention involved a renewal or a change in therapy, all medications were prescribed in a quantity and with refills sufficient to get the patient to their next appointment and, when necessary, pharmacists also facilitated patient reassignment to the appropriate long-term mental health prescriber.

The remaining 20% of interventions involved medication initiations, discontinuations, dose adjustments, and re-titrations. Although not specifically tracked, nonmedication interventions were also performed, including the ordering of labs, referral to other health care providers (social workers, psychologists, etc), and the facilitation of reassignment. Of note, all re-titrations involved prazosin or lamotrigine. The extent to which the results were limited to these 2 medications may be attributable to the lack of a structured protocol; however, decisions to re-titrate medications were made under the clinical judgement of the mental health pharmacist, who was given full autonomy to make any and all changes to therapy deemed clinically appropriate. And while the drug literature is explicit on when re-titration of lamotrigine is necessary, the decision to re-titrate prazosin was based on the mental health pharmacist's clinical judgement. For example, one patient prescribed prazosin 5 mg at bedtime complained of worsening nightmares upon interview and was found to have stopped taking their prazosin for an unknown but substantial period of time. After careful assessment, it was determined that the previous dose was efficacious as prescribed and there were no use-mitigating concerns. However, as the patient had been off the medication for some time, re-titration to the previous dose was deemed to be most appropriate.

The implementation of this service, which triaged patients without a mental health prescriber to short-term medication management by mental health pharmacists, was associated with a 21% decrease in the mean monthly volume of patients seen at the Denver VA PES. Where the core function of PES is to care for those patients in acute behavioral crisis, these results appear to indicate that patients were frequently presenting for nonemergent medication issues. Our data may also suggest that utilization of mental health pharmacists may help alleviate stress on PES. Although pharmacist intervention cannot be identified as the primary reason behind this decrease, it certainly suggests that pharmacists may be effective in bridging gaps in patient care that are created due to prescriber turnover.

Several important limitations deserve consideration. First, this study is retrospective, which makes it impossible to definitively establish a causal relationship. Second, data comparing PES records encompassed just an 8-month period, which includes 3 months before and 5 months after clinic implementation. Since records for just the 3 months immediately preceding the clinic were obtainable, the small sample size of the preimplementation group leaves the

possibility that the mean number of patients seen per month in PES prior to clinic implementation may not have been representative of the true month-to-month data. This limitation is also true of the study population at large due to the limited sample size. It is also important to consider that given the timing and location of this study, a potentially confounding factor in the decreased utilization of the Denver VA PES was winter weather and/or the holiday season. Finally, while other types of interventions were performed, these data were not recorded and thus represent a missed opportunity.

This study suggests that mental health pharmacists acting as interim prescribers for patients who have lost their prescriber due to turnover is associated with a decrease in overall utilization of PES and perhaps is representative of an increase in accessibility to care. While a majority of interventions involved medication renewals, pharmacists also initiated changes in patient's pharmacotherapy when deemed appropriate in the clinical judgment of the mental health pharmacist. The limitations of this small retrospective study are also notable, and while appropriate for facility-specific quality improvement purposes, prospective studies with larger patient cohorts and of longer durations are necessary to truly characterize pharmacist's impact and the generalizability of results across healthcare systems.

## References

1. Hampton LM, Daubresse M, Chang H-Y, Alexander GC, Budnitz DS. Emergency department visits by adults for psychiatric medication adverse events. *JAMA Psychiatry*. 2014;71(9):1006-14. DOI: [10.1001/jamapsychiatry.2014.436](#). PubMed PMID: [25006837](#).
2. Association of American Medical Colleges Center for Workforce Studies. Physician specialty data book [Internet]. Washington: The Association; 2012. Available from: [https://members.aamc.org/eweb/upload/12-039%20Specialty%20Databook\\_final2.pdf](https://members.aamc.org/eweb/upload/12-039%20Specialty%20Databook_final2.pdf)
3. Reddy A, Pollack CE, Asch DA, Canamucio A, Werner RM. The effect of primary care provider turnover on patient experience of care and ambulatory quality of care. *JAMA Intern Med*. 2015; 175(7):1157-62. DOI: [10.1001/jamainternmed.2015.1853](#). PubMed PMID: [25985320](#).
4. Misra-Hebert AD, Kay R, Stoller JK. A review of physician turnover: rates, causes, and consequences. *Am J Med Qual*. 2004;19(2):56-66. DOI: [10.1177/106286060401900203](#). PubMed PMID: [15115276](#).
5. Goldstone LW, DiPaula BA, Caballero J, Park SH, Price C, Zasadzki Slater M. Improving medication-related outcomes for patients with psychiatric and neurologic disorders: value of psychiatric pharmacists as part of the health care team. *Ment Health Clin* [Internet]. 2015;5(1):1-28. DOI: [10.9740/mhc.2015.01.001](#).
6. McKee JR, Lee KC, Cobb CD. Psychiatric pharmacist integration into the medical home. *Prim Care Companion CNS Disord*. 2013; 15(4):PCC.13com01517. DOI: [10.4088/PCC.13com01517](#). PubMed PMID: [24392254](#); PubMed Central PMCID: [PMC3869606](#).
7. American Pharmacists Association; National Association of Chain Drug Stores Foundation. Medication therapy management in pharmacy practice: core elements of an MTM service model (version 2.0). *J Am Pharm Assoc* (2003). 2008;48(3):341-53. DOI: [10.1331/JAPhA.2008.08514](#). PubMed PMID: [18595820](#).